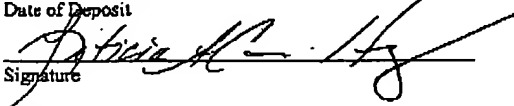
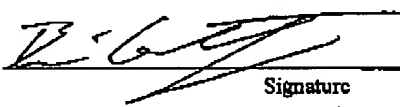


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FISH &amp; RICHARDSON P.C.

PTO/SB/33 (07-05)  
Approved for use through 10/01/2006. OMB 0651-0001  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

<b>PRE-APPEAL BRIEF REQUEST FOR REVIEW</b>		Docket Number: 18511-005001
I hereby certify that this correspondence is being transmitted by facsimile to the Patent and Trademark Office on the date indicated below.  September 7, 2006 Date of Deposit  Signature Leticia A. Cuevas-Hernandez Typed or Printed Name of Person Signing Certificate	Application Number 09/645,028	Filed August 23, 2000
	First Named Inventor Rygaard et al.	
	Art Unit 2131	Examiner Jenise E. Jackson
Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.  This request is being filed with a Notice of Appeal.  The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.  I am the <input type="checkbox"/> applicant/inventor. <input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96) <input checked="" type="checkbox"/> attorney or agent of record <u>52,978</u> (Reg. No.) <input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____  NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.  <input checked="" type="checkbox"/> Total of / forms are submitted.		

  
 Signature  
 Brian J. Gustafson  
 Typed or printed name  
 (650) 839-5070  
 Telephone number  
 September 7, 2006  
 Date

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Attorney's Docket No.: 18511-005001

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Rygaard et al.                      Art Unit : 2131  
Serial No. : 09/645,028                      Examiner : Jenise E. Jackson  
Filed : August 23, 2000                      Conf. No. : 1587  
Title : MOBILE APPLICATION SECURITY SYSTEM AND METHOD

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Commissioner for Patents  
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Alexandria, VA 22313-1450

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PRE-APPEAL BRIEF REQUEST FOR REVIEW

The brief is in response to legal and factual deficiencies in the final Office Action mailed June 29, 2006.

The Examiner rejected claims 21-41 under 35 U.S.C. § 102(a) as allegedly anticipated by Jansen et al., NIST Special Publication 800-19-Mobile Agent Security ("Jansen"). The Examiner has objected to claims 42 and 43 as being dependent upon a rejected base claim.

*I. The cited art does not teach or suggest storing a first instance and receiving a second instance of a mobile application on a server.*

Claim 21 is directed to a system that includes a server in communication with a first host and a second host. Prior to a jump of a mobile application from the first host to the second host, the server stores a first instance of the mobile application. During the jump to the second host, the server receives a second instance of the mobile application from the first host.

The Examiner states that Jansen discloses the recited feature of claim 21 at page 2, second paragraph and FIG. 1. Applicant traverses the rejection. Page 2, second paragraph reads, in pertinent part, as follows:

A number of models exist for describing agent systems [2, 6, 7]; however, for discussing security issues it is sufficient to use a very simple one, consisting of

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Leticia A. Cuevas-Hernandez

Typed or Printed Name of Person Signing Certificate

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only two main components: the agent and the agent platform. Here, an agent is comprised of the code and state information needed to carry out some computation. Mobility allows an agent to move, or hop, among agent platforms. The agent platforms provide the computational environment in which an agent operates. The platform from which the agent originates is referred to as the home platform, and normally is the most trusted environment for an agent. One or more hosts may comprise an agent platform.

The portion of Jansen relied on by the Examiner describes only a simple model for describing an agent system where an agent represents a mobile application and agent platforms represent hosts. Nowhere in the portion relied on by the Examiner, however, is there any mention of a server or the claimed functions performed by Applicant's server. Similarly, FIG. 1 depicts the model discussed in the above cited paragraph. FIG. 1 simply does not include any server. Indeed, the arrow representing the path of travel of the mobile application in FIG. 1, *i.e.*, from one platform directly to another platform, indicates that the simple model described is peer to peer and not client to server. Thus, Applicant respectfully asserts that the cited portions not only fail to mention, teach or suggest a server, but also teach away from a client server model as set forth in claim 21 by showing a peer to peer model where a mobile agent jumps from host to host. Furthermore, the Examiner appears to agree on page 2 of the Office Action when citing the above portion of Jansen where the Examiner explains the rejection by stating, "pg. 2, 2<sup>nd</sup> paragraph teaches Mobile agents (MA) hopping from *peer to peer*" (emphasis added).

In responding to Applicant's previous arguments, the Examiner does not address the above sections of Jensen, which were specifically cited again in the present rejection. Instead, the Examiner states that the path histories on page 21 disclose the recited feature of claim 21. Specifically, the Examiner states that "when moving between agent platforms, an agent conveys the last platform, current platform, and the next platform." See Office Action page 5, paragraph 22. Furthermore, the Examiner asserts that the last platform is the first instance, the current platform is the location of the current mobile application, and the next platform is the second instance. Applicant respectfully disagrees.

Movement between agent platforms does not teach or suggest storing an instance of a mobile application on a server. The cited section discloses only moving from agent to agent (*e.g.*, a peer to peer system). The path history is sent between agents so that the receiving agent can compare the path history with a stored version of the itinerary in order to check for

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inconsistencies. *See* section 4.2.2, first paragraph. Thus, there is no teaching or suggestion in Jensen that the path history ever reaches or is stored on a server.

Also, a path history, even if stored on a server, is not an instance of a mobile application. The relied upon path history does not include executable code for the mobile application. Instead, the path history only identifies particular platforms (hosts) in the path of the mobile application. Identifying a last platform does not provide an instance of the application including executable code.

The Examiner also states that Jansen in general teaches a system and method being used on a computer, therefore executable code is taught. *See* Office Action page 5, paragraph 24. The observation that systems and methods including computers include executable code in some manner is insufficient to teach or suggest the recited feature. The recited feature of claim 1 requires that an instance of a mobile application be stored on a server prior to a jump of the mobile application between the first and second hosts. A second instance of the mobile application is received on the server during the jump from the first host to the second host. These requirements are not taught or suggested simply by observing that computer applications include executable code.

Therefore, the cited sections of Jansen do not teach or suggest a server storing a first instance of a mobile application prior to a jump from a first host to a second host and receiving a second instance of the mobile application during the jump.

*II. The cited art does not teach or suggest a server detecting unwanted changes including comparing the first and the second instances of the mobile application*

The Examiner states that Jansen discloses a server detecting unwanted changes in contents of the mobile application including comparing the first and second instances of the mobile application at section 2.1.2, section 3.2, page 9, and section 4.2.2. Applicant traverses the rejection.

Section 2.1.2 of Jansen discloses a type of threat referred to as a denial of service attack to an agent platform. Specifically, Section 2.1.2 states "Mobile agents can launch denial of service attacks by consuming an excessive amount of the agent platform's computing

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recourses.... Depending on the level of access, the agent may be able to completely shutdown or terminate the agent platform" (Section 2.1.2).

Thus, Section 2.1.2 discloses a specific type of threat to an agent system. However, the discussion of a type of security threat does not teach or suggest Applicant's claimed detection of unwanted changes in a mobile application. Denial of service is a particular type of security attack. Jansen is silent as to how to detect such an attack.

The Examiner also states that section 3.2 of Jansen discloses the detecting step of claim 21. Section 3.2 discloses that an agent platform must protect agents from unauthorized modification of agent code, state, and data. Furthermore, the agent platform must ensure that only authorized agents or processes are used to modify shared data. See page 9, last paragraph.

Also, the cited section is silent on any particular actions taken by a server to detect changes in a mobile application. The cited section fails to teach or suggest the use of a server to detect unwanted changes in contents of a mobile application including comparing first and second instances of a mobile application.

The Examiner also states that page 9 discloses the detecting step of claim 21. Page 9 includes most of section 3.1. Section 3.1 discloses that private data stored on an agent platform or carried by an agent must remain confidential. See page 8, last paragraph.

However, while the cited section discloses the need for network security in keeping information confidential, there is no teaching or suggestion of providing confidentiality by detecting unwanted changes in contents of a mobile application on a server. Furthermore, there is no teaching or suggestion in the cited section of comparing a first and second instance of the mobile application to detect unwanted changes, as required by claim 21.

Finally, Examiner also states that section 4.2.2 of Jansen discloses the detecting step of claim 21. Section 4.2.2 of Jansen discloses mutual itinerary recording. Mutual itinerary recording is a scheme in which an agent records and tracks a peer agent's itinerary and vice versa. Specifically, when moving between platforms, the agent sends information regarding the last platform, current platform, and next platform to the peer agent. See page 21, second paragraph.

Section 4.2.2 of Jansen does not teach or suggest a server that compares a first and second instance of the mobile application to detect unwanted changes. The itinerary is not an

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instance of the mobile application. The itinerary is simply data and does not include executable code for the mobile application, as required by claim 21.

In responding to Applicant's previous arguments, the Examiner further states that Jansen discloses protection against modification of code, which is equated to comparing the original to the one received by another host. The examiner further states that section 4.2.2 shows tracking and comparing the itinerary as it traverses peers. The applicant respectfully disagrees.

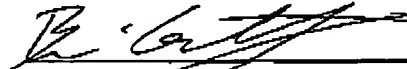
Jensen discloses protection from modification through techniques for detecting if a modification has occurred, such as by tracking and comparing the itinerary of the mobile application. See section 4.22. Comparison of an itinerary is not the same as comparison of instances of a mobile application. The itinerary disclosed at page 19 suggests that the originator of an agent (*i.e.*, the creator of a mobile application) can restrict which agent platforms (hosts) the agent can jump to by defining a list of trusted agent platforms. See page 19, lines 3-7. Thus, the itinerary simply identifies a list of trusted agent platforms from which the agent can jump. There is no executable code in the itinerary list, in contrast with the recited mobile application.

Thus, the each of the sections cited by the examiner fail to teach or suggest a server detecting unwanted changes in contents of the mobile application including comparing the first and second instances of the mobile application. Applicant respectfully submits that claim 21, as well as claims 22-27, which depend from claim 21, are in condition for allowance.

Claims 28 and 35 include features similar to claim 21. Therefore, claims 28 and 35, as well as dependent claims 29-34 and 36-41 are allowable for the same reasons as set forth above with respect to claim 21. Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: 7 September, 2006

  
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